

Work Permit # PK-04-2  
Work Order # \_\_\_\_\_  
Job# \_\_\_\_\_ Activity# \_\_\_\_\_

Work requester fills out this section.

☐ Standing Work Permit

Requester: <u>P. Kroon</u>	Date: <u>9/9/04</u>	Ext.: <u>5114</u>	Dept/Div/Group: <u>PO/Putnix</u>
Other Contact person (if different from requester): <u>S. MARINO</u>	Ext.: <u>3704</u>		
Work Control Coordinator: <u>P. Kroon</u>	Start Date: <u>9/9/04</u>	Est. End Date: <u>9/17/04</u>	
Brief Description of Work: <u>MAINTENANCE (TEST, REPAIR) electronics in NMS G/C-LINK crates</u>			
Building: <u>1008</u>	Room: <u>IR</u>	Equipment: <u>N/A</u>	Service Provider: <u>PUTNIX</u>

2. WCC, Requester/Designee, Service Provider, and ES&H (as necessary) fill out this section or attach analysis

<b>ES&amp;H ANALYSIS</b>			
<b>Radiation Concerns:</b> <input checked="" type="checkbox"/> None <input type="checkbox"/> Activation <input type="checkbox"/> Airborne		<input type="checkbox"/> Contamination <input type="checkbox"/> Radiation <input type="checkbox"/> Other	
<input type="checkbox"/> Special nuclear materials involved, notify Isotope Special Materials Group		<input type="checkbox"/> Fissionable materials involved, notify Laboratory Criticality Officer	
<b>Safety Concerns</b> <input type="checkbox"/> None <input type="checkbox"/> Ergonomics		<input type="checkbox"/> Transport of Haz/Rad Material	
<input type="checkbox"/> Adding/Removing Walls or Roofs	<input type="checkbox"/> Confined Space*	<input type="checkbox"/> Explosives	<input type="checkbox"/> Lead*
<input type="checkbox"/> Asbestos*	<input type="checkbox"/> Corrosive	<input type="checkbox"/> Flammable	<input type="checkbox"/> Magnetic Field*
<input type="checkbox"/> Beryllium*	<input type="checkbox"/> Cryogenic	<input type="checkbox"/> Fumes/Mist/Dust*	<input type="checkbox"/> Material Handling
<input type="checkbox"/> Biohazard*	<input checked="" type="checkbox"/> Electrical	<input type="checkbox"/> Heat/Cold Stress	<input type="checkbox"/> Noise*
<input type="checkbox"/> Chemicals*	<input checked="" type="checkbox"/> Elevated Work*	<input type="checkbox"/> Hydraulic	<input type="checkbox"/> Non-ionizing Radiation*
	<input type="checkbox"/> Excavation	<input type="checkbox"/> Lasers*	<input type="checkbox"/> Oxygen Deficiency*
* Does this work require medical clearance or surveillance from the Occupational Medicine Clinic? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
<b>Environmental Concerns</b> <input checked="" type="checkbox"/> None		<input type="checkbox"/> Work impacts Environmental Permit No.	
<input type="checkbox"/> Atmospheric Discharges (rad/non-rad)	<input type="checkbox"/> Land Use	<input type="checkbox"/> Soil activation/contamination	<input type="checkbox"/> Waste-Mixed
<input type="checkbox"/> Chemical or Rad Material Storage or Use	<input type="checkbox"/> Liquid Discharges	<input type="checkbox"/> Waste-Clean	<input type="checkbox"/> Waste-Radioactive
<input type="checkbox"/> Cesspools (UIC)	<input type="checkbox"/> Oil/PCB Management	<input type="checkbox"/> Waste-Hazardous	<input type="checkbox"/> Waste-Regulated Medical
<input type="checkbox"/> High water/power consumption	<input type="checkbox"/> Spill potential	<input type="checkbox"/> Waste-Industrial	<input type="checkbox"/> Underground Duct/Piping
Waste disposition by: <input type="checkbox"/> Other			
<b>Pollution Prevention (P2)/Waste Minimization Opportunity:</b> <input checked="" type="checkbox"/> None <input type="checkbox"/> Yes			
<b>FACILITY CONCERNS</b> <input checked="" type="checkbox"/> None			
<input type="checkbox"/> Access/Egress Limitations	<input type="checkbox"/> Electrical Noise	<input type="checkbox"/> Potential to Cause a False Alarm	<input type="checkbox"/> Vibrations
<input type="checkbox"/> Configuration Control	<input type="checkbox"/> Impacts Facility Use Agreement	<input type="checkbox"/> Temperature Change	<input type="checkbox"/> Other
<input type="checkbox"/> Maintenance Work on Ventilation Systems	<input type="checkbox"/> Utility Interruptions		
<b>WORK CONTROLS</b>			
<b>Work Practices</b>			
<input type="checkbox"/> None	<input type="checkbox"/> Exhaust Ventilation	<input checked="" type="checkbox"/> Lockout/Tagout	<input type="checkbox"/> Spill Containment
<input type="checkbox"/> Back-up Person/Watch	<input type="checkbox"/> HP Coverage	<input type="checkbox"/> Posting/Warning Signs	<input type="checkbox"/> Time Limitation
<input type="checkbox"/> Barricades	<input type="checkbox"/> IH Survey	<input type="checkbox"/> Scaffolding-requires inspection	<input type="checkbox"/> Warning Alarm (i.e. "high level")
<b>Protective Equipment</b>			
<input type="checkbox"/> None	<input type="checkbox"/> Ear Plugs	<input type="checkbox"/> Gloves	<input type="checkbox"/> Lab Coat
<input type="checkbox"/> Coveralls	<input type="checkbox"/> Ear Muffs	<input type="checkbox"/> Goggles	<input type="checkbox"/> Respirator
<input type="checkbox"/> Disposable Clothing	<input type="checkbox"/> Face Shield	<input type="checkbox"/> Hard Hat	<input type="checkbox"/> Shoe Covers
			<input checked="" type="checkbox"/> Safety Glasses
			<input checked="" type="checkbox"/> Safety Harness
			<input type="checkbox"/> Safety Shoes <input type="checkbox"/> Other
<b>Permits Required (Permits must be valid when job is scheduled.)</b>			
<input checked="" type="checkbox"/> None	<input type="checkbox"/> Cutting/Welding	<input type="checkbox"/> Impair Fire Protection Systems	
<input type="checkbox"/> Concrete/Masonry Penetration	<input type="checkbox"/> Digging/Core Drilling	<input type="checkbox"/> Rad Work Permit-RWP No	
<input type="checkbox"/> Confined Space Entry	<input type="checkbox"/> Electrical Working Hot	<input type="checkbox"/> Other	
<b>Dosimetry/Monitoring</b>			
<input checked="" type="checkbox"/> None	<input type="checkbox"/> Heat Stress Monitor	<input type="checkbox"/> Real Time Monitor	<input type="checkbox"/> TLD
<input type="checkbox"/> Air Effluent	<input type="checkbox"/> Noise Survey/Dosimeter	<input type="checkbox"/> Self-reading Pencil Dosimeter	<input type="checkbox"/> Waste Characterization
<input type="checkbox"/> Ground Water	<input type="checkbox"/> O <sub>2</sub> /Combustible Gas	<input type="checkbox"/> Self-reading Digital Dosimeter	<input type="checkbox"/> Other
<input type="checkbox"/> Liquid Effluent	<input type="checkbox"/> Passive Vapor Monitor	<input type="checkbox"/> Sorbent Tube/Filter Pump	
<b>Training Requirements (List below specific training requirements)</b>			
<u>FALL PROTECTION</u>			
Based on analysis above, the Walkdown Team determines the risk, complexity, and coordination ratings below:		If using the permit when all hazard ratings are low, only the following need to sign: (Although allowed, there is no need to use back of form)	
ES&H Risk Level:	<input checked="" type="checkbox"/> Low <input type="checkbox"/> Moderate <input type="checkbox"/> High	WCC: <u>Peter Kroon</u>	Date: <u>9/9/04</u>
Complexity Level:	<input checked="" type="checkbox"/> Low <input type="checkbox"/> Moderate <input type="checkbox"/> High	Service Provider: <u>S. Marino</u>	Date: <u>9/9/04</u>
Work Coordination:	<input checked="" type="checkbox"/> Low <input type="checkbox"/> Moderate <input type="checkbox"/> High	Authorization to start: <u>S. Marino</u>	Date: <u>9/9/04</u>
(Departmental Sup/WCC/Designee)			

3. Both work requester and service provider contribute to work plan (use attachments for detailed plans)

Work Plan (procedures, timing, equipment, and personnel availability need to be addressed):

— SEE ATTACHED —

Special Working Conditions Required:

Operational Limits Imposed:

Post Work Testing Required:

Job Safety Analysis Required: ☐ Yes ☐ No

Walkdown Required: ☐ Yes ☐ No

Reviewed by: Primary Reviewer will determine the size of the review team and the other signatures required based on hazards and job complexity. Primary Reviewer signature means that the hazards and risks that could impact ES&H have been identified and will be controlled according to BNL requirements.

Title	Name (print)	Signature	Life #	Date
Primary Reviewer				
ES&H Professional				
Other				
Other				
Work Control Coordinator				
Service Provider				
Review Done: <input type="checkbox"/> in series <input type="checkbox"/> team				

4. Job site personnel fill out this section.

Note: Signature indicates personnel performing work have read and understand the hazards and permit requirements (including any attachments).

Job Supervisor:		Contractor Supervisor:	
Workers:	Life#:	Workers :	Life#:

Workers are encouraged to provide feedback on ES&H concerns or on ideas for improved job work flow. Use feedback form or space below.

5. Departmental Job Supervisor, Work Control Coordinator/Designee

Conditions are appropriate to start work: (Permit has been reviewed, work controls are in place and site is ready for job.)

Name:	Signature:	Life#:	Date:
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6. Departmental Job Supervisor, Work Requester/Designee determines if Post Job Review is required. ☐ Yes ☐ No

Post Job Review (Fill in names of reviewers)

Name:	Signature:	Life#:	Date:
Name:	Signature:	Life#:	Date:

7. Worker provides feedback.

Worker Feedback (use attached sheets as necessary)

a) WCM/WCC: Is any feedback required? ☐ Yes ☐ No

b) Workers: Are there better methods or safer ways to perform this job in the future? ☐ Yes ☐ No

8. Closeout: Work Control Coordinator (authorizing dept.) checks quality of completed permit and ensures the work site is left in an acceptable condition. (WCC can delegate clean up of work area to work supervisor)

Name:	Signature:	Life#:	Date:
Comments:			

**Remove and Repair electronic cards from C-link/G-link crates on south muon magnet in PHENIX IR, Bldg. 1008.**

This work is to be done during the '04 RHIC shutdown period, by fully trained and experienced personnel. Since the crates are located on the back of the south muon magnet (MMS) at heights of up to 26 feet, the vertical man-lift will be moved into the IR for this job, and removed upon completion. No flammable gas will be present in detectors in the IR. All work in the IR will be supervised by Sal Marino.

- Roll the vertical man lift into the IR through the large rolling door opening and place it behind the MMS (Marino).
- Ensure that the MMS magnet power key is locked out of use (Marino)).
- Ensure that the 12-ton IR Crane is locked out (Marino).
- Position the vertical man lift and use it to access the crates (Marino, O.Drapier, I. Younus).
- Work will involve test, removal, repair and replacement of defective cards as required (Drapier, Younus).
- Upon completion of the work, the man lift will be removed from the IR (Marino).